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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/581,251

06/13/2006

Satochi Futami

4662-166

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09/16/2008

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

PAUL, JESSICA MARIE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/581,251 | Applicant(s) FUTAMI ET AL. | |
| | Examiner Jessica Paul | Art Unit 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/31/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 reads "an optical part obtained by curing the composition according to." Claim 5 is indefinite because it does not depend on any of the claims 1-4. For the purpose of further examination, the examiner takes the position that claim 5 is dependent on claim 1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

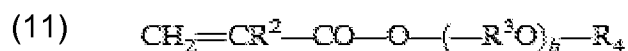
3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takase et al. (US Patent No. 6440519).

4. Regarding claims 1 and 4; Takase et al. discloses a photocurable resin composition which comprises (A) a urethane (meth)acrylate oligomer obtained by the reaction of (a) at least one polyol compound, (b) a polyisocyanate compound, and (c) a hydroxyl group-containing (meth)acrylate compound; (B) a (meth)acryloylphosphate; (C) a multifunctional (meth)acrylate compound; and (D) a photopolymerization initiator

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(abs). The photocurable resin composition is useful as an adhesive for the manufacture of optical disks (col1, line17-line19).

5. Takase et al. teaches a photocurable resin composition, comprising component (C) a (meth)acrylate compound. The component (C) may comprise one or more (meth)acrylate compounds, which include both monofunctional and multifunctional compounds (col9, line41- col10, line31). Given examples of the monofunctional acrylate monomers include phenoxyethyl (meth)acrylate (col10, line4), and compounds represented by the following formula (11):



Wherein R^2 is a hydrogen or methyl group, R^3 is an alkylene group having 2-6 carbon atoms, R_4 is an alkyl or aryl group having 1-25 carbon atoms, and is preferable a phenyl group, optionally substituted with an alkyl group having 1-12 carbon atoms, and b is an integer from 0-12 (col10, line22-line31). The monofunctional acrylate compound as taught by Takase et al. reads on applicants claim to a (meth)acrylate as required by component (A).

6. Takase et al. teaches suitable multifunctional (meth)acrylate compounds to be trimethylolpropane tri(meth)acrylate, pentaerythritol (meth)acrylate, trimethylolpropane trioxyethyl (meth)acrylate, tris(acryloyl ethyl) isocyanurate (col11, line3-line7), and commercially available Aronix M-315 (col11, line45). The multifunctional acrylate compound as taught by Takase et al. reads on applicants claim to the multifunctional (meth)acrylate as required by component (B).

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7. The polymeric polyol compound (a) as taught by Takase et al. can be one or more selected from the group consisting of polyester polyols or polycarbonate polyols (col3, line1-col4, line11). An example of a commercially available polycarbonate polyol used by Takase et al. is PLACCEL CD-220PL (col4, line4); which is a preferred example of the applicant.

8. Takase et al. fails to teach the range of 5-50 wt% of the total acrylic components in the composition are (meth)acrylate compounds. The methyl group of the (meth)acrylate causes the compound to be more hydrophobic, as compared to an acrylate compound. The optimal amount of the (meth)acrylate range can determine the hydrophobicity of the composition, therefore it would have been obvious, to one of ordinary skill in the art, at the time the invention was made to vary the amount of (meth)acrylate compounds as it done in routine experimentation.

9. Regarding claim 2; Takase et al. teaches that the proportion of various components should be determined so as to make the refractive index of the cured products 1.50-1.60 at 25°C, which reads on the range of 1.55 or more as required by the applicant (col15, line23-line25).

10. Regarding claim 3; Takase et al. teaches that it is desirable that the various components are blended in proportions such that the glass transition temperature of the resulting cured products is in the range of preferably 30 to 120°C (col14, line55-line59). The glass transition temperature as taught by Takase et al. reads on the softening point as required by the applicant.

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11. Regarding claim 5; Takase et al. discloses a photocurable resin composition useful as an adhesive for the manufacture of optical disks. These adhesive compositions are suitable for the use in laminating the multi-layers of optical disks because, upon curing, they have excellent optical transparency, low shrinkage, high temperature resistance, high impact resistance, and exhibit good bonding characteristics to a variety of materials (col2, line20-line25).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Paul whose telephone number is (571)270-5453. The examiner can normally be reached on Monday thru Friday 8:00- 6:00p; alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./
Supervisory Patent Examiner, Art Unit 1796
2-Sep-08

Jessica Paul
Examiner
Art Unit 4171

/JMP/